**On Your Knees or at the Bar:
A Study on Religiosity and Alcohol Use among College Students**

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Abstract:

This study examined relationships among religiosity, spirituality, and alcohol use by 186 18- to 25-year-old students at the University of North Texas. Religiosity was measured in three ways: by the respondents' public participation and practice in religious traditions and services, religious socialization, and personal religious ideology. Spirituality was similarly measured by spiritual practice, socialization, and beliefs. Alcohol measures included frequency of consumption, extent of consumption, and two measures of the sociality of consumption including with whom one drinks and where the drinking takes place. Although religiosity and spirituality are difficult to measure and quantify, the results indicate that a negative relationship exists between religiosity/spirituality and alcohol consumption, which warrants further investigation into what can be done within religious and spiritual institutions to deter adolescents from risky health behaviors such as alcohol use.

Introduction

Religion as a philosophical and practical institution carries both significant macro and micro influences in society. Spirituality as a philosophical and personal phenomenon remains more mysterious regarding its effect on social institutions. College presents an opportunity for young adults to experiment with various spiritual and behavioral practices apart from those of their parents, families, and childhood friends. Separation from the home and independence from parental control allows students the freedom to make behavioral decisions that may often result in risky behavior situations, such as when they are faced with the choice to consume alcohol.

The purpose of this study is not to explicitly determine whether or not religiosity variables have a negative effect on risky health behaviors such as alcohol use, for this conclusion has been drawn and reinforced throughout the literature. Rather, the purpose is to determine what broad expressions of religiosity and spirituality (as a subset and alternative to religiosity) have the strongest effect on alcohol use. This shall be done through grouping the religiosity and spirituality variables most prevalent in the literature into functional categories and then developing a set of core questions that represent each category; this will comprise the bulk of the survey. These groups of variables will hopefully show what broad aspects of religiosity and spirituality are the strongest indicators for negatively affecting the likelihood of alcohol consumption in young people. This study is also designed to isolate religiosity from spirituality in order to measure how each uniquely affects alcohol consumption.

Theoretical Framework

Religion. Religion as an institution is a powerful force of social cohesion capable of building community, shaping culture, and guiding behavior. The prevalence of religion throughout modern society silences the postmodern opposition that labels it as outdated and

insignificant. The function of religion as a source of normative behavior and of ethical and moral standards asserts its value in creating definitions of acceptable behavior and labeling the acts of others as profane, vulgar, or heretical. Understanding and defining religiosity variables may lead to a more cognitive method of assessing and analyzing behavioral traits of many diverse groups of people.

In its definition and in discussing its impact on society, religion cannot be reduced to a social mechanism for building rules and creating structure; indeed this would be a tragic simplification of the complexities of a personal relationship with the divine and the deep mysterious revelations that bring people to faith. However, the fact that personal religiosity is capable of shaping worldviews, attitudes, and behaviors is enough to justify the search for a sociological understanding of the transaction between personal religious ideology and action. Emile Durkheim described religion as a “channel of collective energy” (Bjarnason, Thorlindsson, Sigfusdottir, & Welch, 2005, p. 377) that creates a culture of consciousness based on religious ideas and values. Religious beliefs, religious communities, and divine support described in Durkheim’s theory of social integration shifts the focus of humanity from isolation toward community where religious principles are enforced. Religion is characterized by two causal mechanisms that promote individual quality of life, in turn preventing risky health behaviors: religious beliefs and religious community (Bjarnason et al., 2005). Religious beliefs are defined by an individual’s personal relationship with the divine that shapes ethics and morality, offering a sense of divine support through coping and creating a particular worldview based on divine revelations and the reading of religious literature. Religious community is a series of bonding relationships that encourage religious participation and adherence through mutually encouraging

social accountability. Collective ideology that is developed through beliefs and community is a guiding force for behavior in social settings (Bjarnason et al., 2005).

Spirituality. Spirituality is often viewed in two ways: as either an unstructured alternative to religion or the personal experience that takes place within religion behind the institutionalized framework. Both perspectives are important in understanding the role spirituality has on behavioral regulation in adolescents. Young people who claim spirituality as their alternative to mainstream religion do so generally for three reasons. They are expressing a resistance to the structure of rules and behavioral expectations inherent in organized religion; they find a deeper sense of purity and truth in spirituality; or in some way they have been jaded by the religious accidents, violence, suicidality, and sexual risk.

Alcohol use. The importance of studying alcohol use is best described by Bjarnason et al. (2005):

Adolescent alcohol use entails a substantial risk of immediate physical, psychological, and social harm to adolescents. Such use involves serious short-term and long-term health risks, anticipates future substance abuse and is associated with a host of negative behavioral consequences, including taking. (p. 376)

The ramifications of lackadaisical alcohol consumption foster serious social concerns that have given birth to multiple social movements fighting against such potentially devastating behavior. Notable organizations include Mothers Against Drunk Driving (MADD) and Students Against Drunk Driving (SADD).

Adolescents. Adolescent research was heavily relied upon because the interests of this study were to understand the relationship between alcohol use and both religiosity and spirituality, primarily concerning adolescents and college-age individuals. The age of

adolescence is highly experimental, and college is both a time and a place where young people are encouraged to explore their personal religious and spiritual beliefs and are more exposed to risky health behavior situations such as a group of peers consuming alcohol. Because this study's survey questions were modeled after those found in other peer-reviewed studies, it seemed most appropriate that the model studies also be primarily concerned with the behavior, religiosity, and spirituality of young people. The few studies referenced that were not primarily concerned with adolescents were used to develop the method and theoretical framework of this study, not the questionnaire.

Literature Review

Introduction

Religious activities have the potential to discourage adolescents from getting involved in behaviors that negatively affect their health. These behaviors range from illicit drug use—including marijuana, cocaine, heroin, LSD, cigarettes, and alcohol—to sexually promiscuous behaviors (Stylianou, 2004). Religiosity measures the ways and the extent to which these adolescents are involved and personally invested in religious activities and ideologies. Studying religiosity variables has the potential for uncovering a better understanding of behavioral patterns in adolescents (Dunn, 2005). Spirituality, typically addressed in the literature as a subset of religiosity, is a relatively fresh topic in studying causes and deterrents of negative health risk behaviors. Furthermore, little research is available that simultaneously addresses the correlation both religiosity and spirituality have to health risk behaviors. Even fewer studies offer an analysis on the strength of the correlation between religiosity and spirituality in regards to health risk behaviors.

Literature Review

Religiosity. Religiosity is best defined throughout the literature as the “extent of religious practice, as measured by religious behavior” (Pullen, Modrcin-Talbott, West, & Muenchen, 1999, p. 4). Throughout the literature, there are four general ways to measure religiosity: demonstration of religious beliefs in public participatory activities and private personal activities, religious self-identification and personal beliefs, socialization into religious norms and practices, and questions of spirituality.

Spirituality. The fourth category deals with spirituality and morality as a subset of religion. Spirituality often differs from religiosity in that religiosity reflects specific behaviors and beliefs associated with a particular religion, whereas spirituality exists as more of a moral perception, an attitude, or an expressed value system (Pullen et al., 1999; Stylianou, 2004). Variables in this category were measured in terms of the respondents’ perceptions on specific health risk behaviors and assessing the morality, acceptability, and safety of those behaviors (Stylianou, 2004).

Health risk behaviors. The spectrum of health risk behaviors examined in the literature is generally categorized into three distinct groups. These groups are based on the outcomes of the particular behaviors as manifested in the lives of the respondents, noted in the results of the research. These categories are defined as behaviors that lead to chemical and substance abuse, behaviors that tend to cause physical injury due to self-infliction or carelessness in conjunction with behaviors that cause respondents to have increased susceptibility to various illnesses/diseases, and behaviors that negatively affect the respondents’ psychological well-being.

Summary

Although in several religious traditions (notably several Christian denominations) respondents indicated that alcohol use was not against their religious teachings, faith as a whole

has been seen to be a protective factor against alcohol misuse (Pullen et al., 1999). The results from these studies consistently reveal religiosity as a preventative agent “for high-risk behaviors among adolescents” (Dunn, 2005). Depending on the variables asked, each study finds a new way to say the same thing: religiosity—whether measured as belief in God, moral principles, or frequency of church attendance—has both a protective effect against risky behavior (Shahrzad, Darren, & Mohsen, 2004) and a tendency to promote positive development and optimal health (King & Furrow, 2004).

Research Questions

There are four key research questions that shape the analysis and discussion of this study:

- Which religiosity/spirituality cluster will be most strongly correlated with alcohol consumption and abuse?
- What is the correlation between religiosity and spirituality and with whom one drinks and where the drinking takes place?
- Does the correlation of religiosity and spirituality with all four measures of alcohol consumption differ by gender?
- Does the correlation of religiosity and spirituality with all four measures of alcohol consumption differ when comparing underage and of-age students?

Research Hypotheses

There are two research hypotheses that shape the analysis and discussion of this study:

- Both religiosity and spirituality will be negatively correlated with alcohol consumption and abuse.
- Religiosity will be more strongly correlated with alcohol consumption and abuse than will spirituality.

Method

This research project was part of an independent undergraduate research thesis through the University of North Texas Honors College. The dual purpose of this study was to examine the relationship of religion and spirituality with alcohol use, and to create a new model of these relationships by redefining and categorizing religiosity and spirituality variables.

Survey Development

The survey used for this study was a 21-question survey written by the researcher after reviewing the existing literature measuring religiosity and spirituality, compiling detailed lists of the religiosity and spirituality questions asked in previous surveys, defining the particular manifestations of religiosity/spirituality that were measured, and categorizing them into three broad clusters. The purpose of the clustering was to ensure that the survey was defined by a comprehensive approach to measuring the religiosity and spirituality of the respondents. A total of 200 surveys were administered in several university core classes in the Department of Political Science in December of 2006. Approval for this study was obtained through the University of North Texas Institutional Review Board (FWA00007479).

Survey Content

Religiosity. Public and private participation and practice was represented by three questions on the survey concerning the respondents' participation in organized religious services; the frequency with which they discuss with others their religious preferences; and the extent to which they participate publicly in traditions, ceremonies, and rituals associated with their religious beliefs. Religious self-identification and personal beliefs were measured by three questions about the respondents' consideration of themselves as religious persons, their reliance on religion to give direction and meaning to their lives, and the passion and fervor with which

they uphold the doctrines and traditions of their religious beliefs. Religious socialization was measured by three survey questions concerning the length of time the respondents have considered themselves as affiliated with their current religion, the attitudes of their immediate family members and close friends toward the respondents; current religious beliefs, and the degree to which they surround themselves in social settings with people of their same religion.

Spirituality. Similar to religiosity, spirituality was measured as three clusters, each with only two questions representing each individual cluster. Spiritual practice was measured by the level of enjoyment the respondent found in participating in spiritually enhancing activities, and the extent to which spirituality affected the decisions that they made. Self-perceived spiritual connection was measured as the connection the respondent felt to spiritual forces and their belief in God or a higher power. Spiritual socialization was represented by survey questions that measured the respondents' tendency to surround themselves with those whom they consider to be spiritual people and the extent to which they sought to befriend spiritual people.

Alcohol consumption. Alcohol consumption was divided into four categories: the frequency of alcohol consumption, the amount of alcohol consumed or the extent of alcohol consumption, and two measures of the sociality of alcohol consumption—who respondents drink with (measured from drinking in solitude to a gathering of close friends to a large group of strangers) and where they typically drink (ranging from at their place of residence to a bar).

Discussion of Results

Frequencies

Religiosity. The frequency distribution for the variables measuring the religious practice dimension of religiosity is presented in Table 1. On the survey question about frequency of participation in organized religious services, slightly more than half (51.1%) of the respondents

reported that they never participated in organized religious services or went no more than once per month. Nearly one-third (29.5%) of the sample said that they never participated publicly in traditions, ceremonies, and/or rituals associated with their religious beliefs. Furthermore, nearly half (46.7%) of the respondents reported either never having conversations with others about their religious preferences or doing so no more than once per month.

The frequency distribution for variables measuring the religious self-identification and personal beliefs dimension of religiosity are presented in Table 2. Two-thirds (67.2%) agreed with the statement, “I consider myself to be a religious person,” and 59.7% agreed that they rely on their religion to give direction and meaning to their life, while 59.1% said that they felt passionate about upholding the doctrine and traditions of their religious beliefs. These results indicated that personal religiosity had retreated from the social scene and had become a private, individual matter. More respondents claimed that their religiosity had personal significance for them and that it helped them find meaning and direction rather than reporting that they publicly expressed their faith. They were also not quick to share their faith with others. Is religion becoming more of a private, personal experience with fewer of the public ceremonies and traditions, or is this just the result of a survey targeting young people who are expressing their resistance to structured and organized public services? We cannot answer that question with the data here.

The variables measuring religious socialization are presented in Table 3. Only 14.0% of the students had spent no time being affiliated with a religion, while 70.4% reported being religiously affiliated for five years or more. More than half (51.5%) agreed strongly that their family was supportive of their religious beliefs. The modal category for surrounding self with

those of the same religious persuasion was the neutral category (44.1%), with more of the students disagreeing (32.8%) than agreeing (23.4%) with that statement.

Spirituality. The frequency distributions for the variables measuring the spiritual socialization dimension of spirituality are presented in Table 4. More than half (52.7%) of respondents reported that they were neutral regarding whether or not they typically surround themselves with those whom they consider to be spiritual people, and over one-third (36.0%) said they were neutral on whether or not their friends regarded themselves as spiritual people.

The frequency distributions for the variables measuring the spiritual practice dimension of spirituality are presented in Table 5. Just over 40 percent (41.4%) expressed neither agreement nor disagreement about enjoying participation in activities that enhanced their spiritual journey. Nearly two-thirds (60.7%) of the respondents agreed that their spirituality affects the decisions that they make. Their decisions could very well have included healthy risk behaviors such as alcohol consumption because, as discussed previously, spirituality has a strong negative effect on frequency and extent of alcohol consumption. However, nearly one-fourth (23.7%) of the respondents were unsure about the extent to which their spirituality affected the decisions that they made. All of these responses of indifference to spirituality questions regarding relationships with spiritual people and activities led to the conclusion that either those in our sample were apathetic toward spirituality or that they were uncertain about what spirituality was and how it manifested itself in everyday life, making these questions difficult to answer. The latter seems more reasonable. The need for religion and spirituality was neither waning nor waxing, but the conceptualization of spirituality for many people was complicated. Understanding what the general target population defines as spiritual is vital to performing future effective research on spirituality.

The frequency distribution for the self-perceived spiritual connection dimension of spirituality is presented in Table 6. Despite the possible confusion as to what specifically defines spirituality, many respondents still embrace it. Nearly 85 percent (84.4%) agreed that they have a belief in God or a higher power, and nearly 60 percent (57.5%) agreed that they felt strongly connected to spiritual forces.

Alcohol variables. The frequency distribution for the measure of typical frequency of drinking is shown in Table 7. About 80 percent (80.1%) of all respondents reported either not drinking at all or drinking only a few times per month or less. The frequency distribution for the measure of how much alcohol the students typically consume is presented in Table 8. Nearly 50 percent (46.7%) either did not drink or only consumed one drink per occasion. These two statistical points of information are important to note because we must understand that the population we were studying did not seem to have problems with alcohol consumption, meaning they did not drink excessively. Given this information, we asked if there was a moderating effect at work within this population to prevent high levels of consumption, or was this just a population of students who were not interested in heavy drinking? We believed that both religiosity and spirituality were negatively correlated with alcohol consumption, but in our study, only slightly more than half of the respondents claimed to be religious and/or spiritual. What were the other moderating factors working in conjunction with religiosity and spirituality to keep such a large percentage of the sample population from abusive alcohol use? Perhaps these other students were affected by the broader culture that their peers were creating to refrain from dangerous consumption even if they did not report to be religious or spiritual themselves.

The frequency distribution for the variable measuring who the students typically drink with is presented in Table 9. More respondents were likely to drink with a few close friends,

nearly 50 percent (47.8%), than with anywhere else. Nearly one-third of the respondents were not drinking at all, so really all that remained were about 17 percent (17.2%) who liked to drink with a large group of friends. Less than 6 percent (5.4%) drank with a large group of people and many people they did not know.

The frequency distribution for the measure of where students typically drink is presented in Table 10. Again, when looking at where the respondents report drinking most frequently, we saw a decrease in responses as the social framework becomes larger and more impersonal; in other words, more people reported drinking at either their own or a friend's home (26.8%) rather than at large social gatherings (16.7%) or bars (6.5%).

Religiosity and Spirituality and Alcohol Consumption

Results of the correlation analysis of the religiosity and spirituality megacluster variables and of the subcluster categories with the four measures of use of alcohol are presented in Table 11. Both religiosity and spirituality had a negative correlation with alcohol use. Both the religiosity megacluster and the spirituality megacluster had weak, negative relationships with frequency of alcohol consumption ($r = -.294$, $p < .05$, and $r = -.285$, $p < .05$, respectively). Furthermore, all the religiosity clusters were statistically significantly related to frequency of alcohol consumption. Within religiosity, the frequency of consumption was most negatively correlated with cluster A, religious practice ($r = -.311$, $p < .05$). Thus, public and private participation and practice appears to be the best indicator of when reported religiosity will negatively impact alcohol consumption. The same was true for cluster E, spiritual practice ($r = -.306$, $p < .05$) within spirituality, which also measured practice and participation. This was interesting frequency of public and private participation because both religious services and spiritual activities tended to be negatively related to religious and spiritual identity. At the same

time, alcohol consumption was generally low. Based on these two observations, we have to assume that there are other mediating factors causing such low levels of alcohol consumption other than religiosity and spirituality.

The amount of alcohol consumption was low in general. All the religiosity clusters and all the spirituality clusters were significantly correlated with the amount of alcohol consumed. Within religiosity, the amount of alcohol consumed had the strongest negative correlation with cluster B, religious self-identification and personal beliefs ($r = -.146, p < .05$), while spiritual practice ($r = -.196, p < .05$) had the strongest correlation among the spirituality variables. Additionally, there was not much difference in the correlations between religiosity and amount of alcohol consumption ($r = -.119, p < .05$) and spirituality and amount of alcohol consumption ($r = -.115, p < .05$). As noted in earlier discussions of the participants in the sample, the particular group of students surveyed appeared to generally have low levels of consumption and relatively strong levels of personal religiosity and spirituality. It is possible then that religiosity and spirituality are intertwined in their ability to negatively impact risky health behaviors. It would be interesting to see if, in the absence of the other, religiosity or spirituality would have a similar independent effect on alcohol consumption as when it is coupled in a survey with other religiosity/spirituality questions.

Religiosity, Spirituality, and Sociality Measures

There was a statistically significant, negative correlation between both religiosity and spirituality and the size of the group and level of individual to group intimacy that characterized drinking for both megacluster measures of religiosity and spirituality and all the subclusters. Both the megacluster measure of religiosity ($r = -.118, p < .05$) and the megacluster measure of spirituality ($r = -.149, p < .05$) were negatively correlated with the size of the group with whom

the students drink. Both religiosity ($r = -.107, p < .05$) and spirituality ($r = -.168, p < .05$) were also significantly negatively related to the size of the place where the students drink. Thus, a higher level of religiosity and spirituality seemed to reduce the likelihood that drinking would occur in larger social settings. When looking at both sociality measures, spirituality had a slightly stronger negative effect than religiosity. This is interesting because religiosity has been characterized as an easier form of personal ideology to express publicly, and spirituality has been seen more as a private and personal philosophy that does not always translate well into a series of publicly observable behaviors. However, in both measures of consumption sociality it was spirituality that had a stronger negative correlation.

Gender Differentiation

The correlation coefficients for each of the religiosity and spirituality clusters controlled for gender are presented in Table 12. Women had stronger negative correlations than men on all the correlations of the religiosity and spirituality clusters with frequency of alcohol consumption. The difference between men's and women's religiosity and spirituality correlations with frequency of alcohol consumption was especially evident when they were asked how often they participated publicly in religious traditions and organized religious services and how often they had conversations with others about their religious preferences. The negative correlation between attending services and frequency of consumption was more than two times stronger for women ($r = -.429, p < .05$) than for men ($r = -.147, p < .05$). This may have been caused by the inclination of women to form social bonding networks and develop social capital through participating in community activities more than men. Thus, these religious public-participatory activities, if they truly have a negative effect on alcohol consumption, would have a greater effect on consumption in women.

More women than men responded that they did not drink alcohol. Both men and women who responded that they did not consume alcohol were excluded from the data analysis with the subsequent alcohol questions. Consequently the ratio of men to women changed between the two groups of alcohol variables; for frequency of alcohol use there were 79 men (42.5%) and 107 women (57.5%), and for the other three measures of alcohol use, there were 58 men (44.3%) and 72 women (55.7%). Between the two alcohol question groupings, 21 men and 35 women were excluded after filtering out the “nondrinkers.”

There are several interesting conclusions to be drawn from examining the differing correlations between men and women regarding religiosity and spirituality clusters and extent of alcohol consumption. Men overall had a negative correlation between each cluster and extent of alcohol consumption, with the strongest correlation being that with religious practice ($r = -.105$, $p < .05$). Women, however, had a significant but negligible correlation between extent of alcohol consumption and the three separate clusters: clusters C, measuring religious socialization ($r = .027$, $p < .05$); cluster D, measuring spiritual socialization ($r = .016$, $p < .05$); and cluster G, measuring self-perceived spiritual connection ($r = -.044$, $p < .05$). Religious self-identification ($r = -.158$, $p < .05$) and spiritual practice ($r = -.228$, $p < .05$) were the most strongly negatively related to the amount of alcohol consumption among women. Neither religious nor spiritual socialization were negatively correlated with extent of alcohol consumption, so although women are more prone to form social networks based around their religious and spiritual ideologies, these social groupings appear to offer no protection against higher alcohol consumption. Apparently, the presence of belief was not enough to protect against greater consumption; rather women with a higher level of spiritual practice were less likely to consume alcohol.

It appears that religiosity and spirituality in women had the strongest negative correlation with frequency but not the other three alcohol measures. Men, however, showed the same general correlations across all measures of consumption for both religiosity and spirituality. In fact, religiosity and spirituality in men had the strongest negative correlations with alcohol consumption when looking at where men decide to drink alcohol. Higher religiosity and spirituality measures correlated positively with consumption in smaller, more intimate settings for men.

Age Differentiation

With only three exceptions, respondents who were of legal drinking age had the strongest negative correlations between frequency and extent of consumption of alcohol and the measures of religiosity and spirituality. Those students who were under the legal drinking age had the stronger correlations between the measures of religiosity and spirituality and the measures of consumption sociality. Many of the correlations, although statistically significant, are very small. However, there are several interesting points of discussion that arise when controlling the relationships between religiosity and spirituality with alcohol consumption for age.

For the question of frequency of alcohol consumption, there were 186 total respondents; 146 were underage and 40 were of age. For the other three other alcohol questions, 94 respondents were underage and 37 were of age. In our participant sample, only three respondents who were of age reported not drinking alcohol at all and thus were excluded from analysis of the other alcohol questions. There were 52 underage respondents who reported not drinking at all and thus were also excluded from the other three alcohol questions. The larger percentage of underage respondents who reported not drinking at all, compared to the smaller percentage of of-age respondents who reported the same, was not surprising because of the legal implications of

underage drinking. We anticipated that more underage students would report no alcohol consumption than their of-age counterparts.

For those of-age respondents, cluster A, public and private religious participation and practice ($r = -.411$, $p < .05$), had the strongest negative correlation among all the correlations between the religiosity and spirituality clusters and the alcohol questions. The frequency of participation in religious services for respondents age 21–25, then, has the greatest potential for reducing the likelihood that a respondent will frequently consume alcohol (and thus the likelihood that they will drink at all).

For the sociality measure of who the student drinks alcohol with, underage respondents were more negatively affected by all measures of religiosity and spirituality than were of-age drinkers. Especially when considering with whom the respondent drinks, a greater degree of religiosity and spirituality were indicative that drinking would take place in a more intimate setting with a few close individuals. This may either be a result of a protective factor of religiosity/spirituality on the respondent's decision regarding with whom and where to drink, or this may just be a product of the reality that underage drinking is illegal and, in order to avoid legal consequences, drinking must take place in smaller, more intimate social settings.

Conclusion

Results, Theory, and Literature

Across a variety of studies regarding the relationship between religiosity and adolescent health risk behaviors, religiosity was shown to prevent high levels of substance abuse and emotional and psychological instability (King & Furrow, 2004). Religious participation was beneficial to the moral and psychological development of adolescents and may be used to create preventative treatment and counseling for the young people who exhibit harmful behaviors.

Emile Durkheim described religion as a “channel of collective energy” (Bjarnason et al., 2005, p. 377) that creates a culture of consciousness based on religious ideas and values. Religion thus has the ability to shape cultural norms and values in society where it is widely practiced and viewed as an acceptable personal ideology. Certainly this is true in the United States and especially in the “Bible Belt” where churches are sometimes more densely clustered than gas stations, and community leaders run for election on platforms that often emphasize religious commitment and moral strength. When looking at frequency of public and private participation in both religious services and spiritual activities, there is evidence of a possible trend (at least with these participants) away from high levels of participation among those with a strong religious and spiritual identity. At the same time, alcohol consumption was generally low. Based on these two observations, it would appear that there are other mediating factors causing such low levels of alcohol consumption other than religiosity and spirituality. After an analysis of the statistics in this study, the results implied that it might be the broader culture that is supportive of religion and religious ideas of morality and right-behavior, not specific personally expressed religious commitment, which has a protective effect against consuming alcohol.

The depth of religiosity cannot be measured fully, and its complex and mysterious manifestations in the lives of religious adherents are often too complicated to understand. However, throughout the literature and even in this study it is clear that a relationship exists between the strength of individual religiosity and deterrence from risky health behaviors such as alcohol use. Furthermore, both in the study results and in the literature, there is no clear delineation of when spirituality is viewed as an alternative to religion or an expression of the depth of religiosity. Exploring the difference between these two perspectives may prove useful for future religiosity research.

Policy and Practical Implications

The goal of research like this is the prevention and treatment of risky health behaviors resulting from alcohol consumption through research, analysis, and practical application of results. Although the primary function of this research project is to add to the existing literature on the relationship among religiosity, spirituality, and alcohol consumption, it is the literature that provides evidence that particular manifestations of religiosity and spirituality carry significant weight in deterring adolescents from risky health behaviors. If there is an awareness of the particular manifestations of religiosity and/or spirituality that more clearly affect behavior, such as religious and spiritual participation and practice in this study, then religious and spiritual leaders can promote development of these functions within their particular religious or spiritual traditions that cater to the needs of adolescents in order to promote the social value of their religious or spiritual institutions.

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Table 1. Frequencies for Religiosity Cluster A: Religious Practice

	Never	$\leq$ once per month	2–3 times per month	Once per week	Several times per week	Total
Participate in organized religious services	45 24.2%	50 26.9%	23 12.4%	42 22.6%	26 14.0%	186 100%
Have conversations about religion	17 9.1%	69 37.1%	41 22.0%	32 17.2%	27 14.5%	186 100%
Participate publicly in rituals or traditions	55 29.6%	49 26.3%	24 12.9%	30 16.1%	28 15.1%	186 100%

Table 2. Frequencies for Religiosity Cluster B: Religious Self-Identification and Personal Beliefs

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Consider self to be religious	19 10.2%	15 8.1%	27 14.5%	78 41.9%	47 25.3%	186 100%
Rely on religion for direction/meaning	23 12.4%	19 10.2%	33 17.7%	69 37.1%	42 22.6%	186 100%
Passion for upholding doctrine and traditions	13 7.0%	16 8.6%	47 25.3%	67 36.0%	43 23.1%	186 100%

Table 3. Frequencies for Religiosity Cluster C: Religious Socialization

	No Time	< 1 Year	1–2 Years	3–5 Years	> 5 Years	Total
Time affiliated with current religion	26 14.0%	7 3.8%	3 1.6%	19 10.2%	131 70.4%	186 100%
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Family is supportive of religious beliefs	2 1.1%	9 4.8%	27 14.5%	53 28.5%	95 51.5%	186 100%
Surround self with those of same religion	17 9.1%	44 23.7%	82 44.1%	33 17.7%	10 5.4%	186 100%

Table 4. Frequencies for Spirituality Cluster D: Spiritual Socialization

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Surround self with spiritual people	10 5.4%	24 12.9%	98 52.7%	44 23.7%	10 5.4%	186 100%
Friends consider themselves spiritual	5 2.7%	19 10.2%	67 36%	78 41.9%	17 9.1%	186 100%

Table 5. Frequencies for Spirituality Cluster E: Strength of Spiritual Practice

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Enjoy activities for spiritual journey	7 3.8%	15 8.1%	77 41.4%	64 24.4%	23 12.4%	186 100%
Spirituality affects decisions	12 6.5%	17 9.1%	44 23.7%	80 43.0%	33 17.7%	186 100%

Table 6. Frequencies for Spirituality Cluster G: Self-Perceived Spiritual Connection

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Belief in God or higher power	10 5.4%	6 3.2%	13 7%	46 24.7%	111 59.7%	186 100%
Feel strongly connected to spiritual forces	8 4.3%	16 8.6%	55 29.6%	72 38.7%	35 18.8%	186 100%

Table 7. Frequency of Responses for Frequency of Alcohol Consumption

Frequency of alcohol consumption	Frequency	Percent
I do not drink alcohol	55	29.6%
A few times per year	48	25.8%
A few times per month	46	24.7%
Once a week	22	11.8%
Several times per week	15	8.1%
Total	186	100%

Table 8. Frequency of Responses for Amount of Alcohol Typically Consumed

Amount of alcohol consumption	Frequency	Percent
I do not drink alcohol	54	29.0%
One drink*	33	17.7%
2–3 drinks	59	31.7%
4–5 drinks	20	10.8%
More than 5 drinks	20	10.8%
Total	186	100%

*“One drink” clarified in study as “equal to one shot, one glass of wine, one beer, one wine cooler, one cocktail, etc.”

Table 9. Frequency of Responses for Whom Student Typically Drinks Alcohol With

Whom student typically drinks with	Frequency	Percent
I do not drink alcohol	55	29.6%
Alone	0	0%
With a few close friends	89	47.8%
With a large group of friends	32	17.2%
With a large group of people, some friends and many I do not know	10	5.4%
Total	186	100%

Table 10. Frequency of Responses for Where Student Typically Drinks Alcohol

Where student typically drinks	Frequency	Percent
I do not drink alcohol	54	29.0%
At my place of residence	39	21.0%
At a close friend's house	50	26.9%
At random parties or social gatherings	31	16.7%
At a bar	12	6.5%
Total	186	100%

Table 11. Correlations of Four Alcohol Measures with Mega-Clusters, Clusters, and Individual Religiosity and Spirituality Questions

	Frequency of alcohol consumption	Amount of alcohol consumption	Whom student typically drinks alcohol with	Where student typically drinks alcohol
Religiosity Mega-cluster	-0.294	-0.119	-0.118	-0.107
Spirituality Mega-cluster	-0.285	-0.115	-0.149	-0.168
Cluster A: Religiosity – Religious practice	-0.311	-0.114	-0.172	-0.127
Cluster B: Religiosity – Religious self-identification	-0.288	-0.146	-0.044	-0.089
Cluster C: Religiosity – Religious socialization	-0.144	-0.034	-0.091	-0.054
Cluster D: Spirituality – Spiritual socialization	-0.303	-0.036	-0.119	-0.147
Cluster E: Spirituality – Spiritual practice	-0.306	-0.196	-0.17	-0.173
Cluster G: Spirituality – Self-perceived connection	-0.129	-0.053	-0.089	-0.107

Note: All correlations statistically significant at $p < 0.05$.

Table 12. Religiosity/Spirituality Clusters and Alcohol Use by Gender

Frequency of Alcohol Consumption	Male	Female
Cluster A: Religiosity – Religious practice	-0.147	-0.429
Cluster B: Religiosity – Religious self-identification	-0.275	-0.307
Cluster C: Religiosity – Religious socialization	-0.098	-0.177
Cluster D: Spirituality – Spiritual socialization	-0.188	-0.381
Cluster E: Spirituality – Spiritual practice	-0.246	-0.352
Cluster G: Spirituality – Self-perceived connection	-0.097	-0.143

Amount of Alcohol Consumption	Male	Female
Cluster A: Religiosity – Religious practice	-0.185	-0.09
Cluster B: Religiosity – Religious self-identification	-0.147	-0.158
Cluster C: Religiosity – Religious socialization	-0.084	0.027
Cluster D: Spirituality – Spiritual socialization	-0.085	0.016
Cluster E: Spirituality – Spiritual practice	-0.118	-0.228
Cluster G: Spirituality – Self-perceived connection	-0.113	0.044

Whom Student Typically Drinks Alcohol With	Male	Female
Cluster A: Religiosity – Religious practice	-0.272	-0.107
Cluster B: Religiosity – Religious self-identification	-0.118	0.013
Cluster C: Religiosity – Religious socialization	-0.193	-0.018
Cluster D: Spirituality – Spiritual socialization	-0.118	-0.121
Cluster E: Spirituality – Spiritual practice	-0.171	-0.17
Cluster G: Spirituality – Self-perceived connection	-0.161	-0.035

Where Student Typically Drinks Alcohol	Male	Female
Cluster A: Religiosity – Religious practice	-0.24	-0.036
Cluster B: Religiosity – Religious self-identification	-0.119	-0.063
Cluster C: Religiosity – Religious socialization	-0.207	0.075
Cluster D: Spirituality – Spiritual socialization	-0.248	-0.061
Cluster E: Spirituality – Spiritual practice	-0.149	-0.198
Cluster G: Spirituality – Self-perceived connection	-0.187	-0.044

Note: All correlations statistically significant at $p < 0.05$.

Table 13. Religiosity/Spirituality Clusters and Alcohol Use by Age

Frequency of Alcohol Consumption	Underage	Of age
Cluster A: Religiosity – Religious practice	-0.277	-0.411
Cluster B: Religiosity – Religious self-identification	-0.205	-0.372
Cluster C: Religiosity – Religious socialization	-0.023	-0.245
Cluster D: Spirituality – Spiritual socialization	-0.255	-0.253
Cluster E: Spirituality – Spiritual practice	-0.294	-0.303
Cluster G: Spirituality – Self-perceived connection	-0.021	-0.255

Amount of Alcohol Consumption	Underage	Of age
Cluster A: Religiosity – Religious practice	-0.089	-0.15
Cluster B: Religiosity – Religious self-identification	-0.097	-0.189
Cluster C: Religiosity – Religious socialization	0.039	-0.093
Cluster D: Spirituality – Spiritual socialization	0.012	-0.078
Cluster E: Spirituality – Spiritual practice	-0.232	-0.117
Cluster G: Spirituality – Self-perceived connection	0.014	-0.108

Whom Student Typically Drinks Alcohol With	Underage	Of age
Cluster A: Religiosity – Religious practice	-0.258	0.088
Cluster B: Religiosity – Religious self-identification	-0.135	0.117
Cluster C: Religiosity – Religious socialization	-0.163	0.017
Cluster D: Spirituality – Spiritual socialization	-0.262	0.214
Cluster E: Spirituality – Spiritual practice	-0.267	0.05
Cluster G: Spirituality – Self-perceived connection	-0.177	0.04

Where Student Typically Drinks Alcohol	Underage	Of age
Cluster A: Religiosity – Religious practice	-0.14	-0.073
Cluster B: Religiosity – Religious self-identification	-0.056	-0.05
Cluster C: Religiosity – Religious socialization	-0.031	0.048
Cluster D: Spirituality – Spiritual socialization	-0.29	0.152
Cluster E: Spirituality – Spiritual practice	-0.143	-0.179
Cluster G: Spirituality – Self-perceived connection	-0.101	-0.04

Note: All correlations statistically significant at $p < 0.05$.